

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 7

Application Number	10/790561
Filing Date	3/1/2004
First Named Inventor	Zucherman
Art Unit	3733
Examiner Name	Jerry L. Cumberledge
Attorney Docket Number	5910-169

## U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Relevant Passages
/P.P./		US 4011602	3/15/1977	Rybicki et al.	
		US 4257409	3/24/1981	Bacal et al.	
		US 4573454	3/4/1986	Hoffman	
		US 4686970	8/18/1987	Dove et al.	
		US 4827918	5/9/1989	Olerud	
		US 5201734	4/13/1993	Cozad et al	
		US 5360430	11/1/1994	Lin	
		US 5690649	11/25/1997	Li	
		US 5810815	9/22/1998	Morales	
		US 6364883 B1	4/2/2002	Santilli	
		US 6402750 B2	6/11/2002	Atkinson et al.	
		US 6451019 B1	9/17/2002	Zucherman et al.	
		US 20020143331 A1	10/3/2002	Zucherman et al.	
		US 6582433 B2	6/24/2003	Yun	
		US 20030153915 A1	8/14/2003	Nekozuka et al.	
		US 6645207 B2	11/11/2003	Dixon et al.	
		US 6695842 B2	2/24/2004	Zucherman et al.	
		US 6709435 B2	3/23/2004	Lin	
		US 6723126 B1	4/20/2004	Berry	
		US 6733534 B2	5/11/2004	Sherman	
		US 20040097931 A1	5/20/2004	Mitchell	
		US 6835205 B2	12/28/2004	Atkinson et al.	
		US 20050010293 A1	1/13/2005	Zucherman et al.	
		US 20050049708 A1	3/3/2005	Atkinson et al.	
		US 20050165398 A1	7/28/2005	Reiley	
		US 20050203512 A1	9/15/2005	Hawkins et al.	
		US 20050203624 A1	9/15/2005	Serhan et al.	
		US 6946000 B2	9/20/2005	Senegas et al.	
		US 20050228391 A1	10/13/2005	Levy et al.	
		US 20050261768 A1	11/24/2005	Trieu	
		US 20050288672 A1	12/29/2005	Feree	
		US 20060004447 A1	1/5/2006	Mastorrio et al.	
		US 20060015181 A1	1/19/2006	Elberg	
		US 20060064165 A1	3/23/2006	Zucherman et al.	
		US 20060085069 A1	4/20/2006	Kim	
		US 20060084983 A1	4/20/2006	Kim	
		US 20060084988 A1	4/20/2006	Kim	

Examiner Signature	/Pedro Philogene/	Date Considered	08/16/2009
--------------------	-------------------	-----------------	------------

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 2 of 7

Application Number	10/790561
Filing Date	3/1/2004
First Named Inventor	Zucherman
Art Unit	3733
Examiner Name	Jerry L. Cumberledge
Attorney Docket Number	5910-169

/P.P./	US 20060084985 A1	4/20/2006	Kim	
	US 20060084987 A1	4/20/2006	Kim	
	US 20060089654 A1	4/27/2006	Lins et al.	
	US 20060089719 A1	4/27/2006	Trieu	
	US 7041136 B2	5/9/2006	Goble et al.	
	US 20060106397 A1	5/18/2006	Lins	
	US 20060106381 A1	5/18/2006	Ferree et al.	
	US 7048736 B2	5/23/2006	Robinson et al.	
	US 20060111728 A1	5/25/2006	Abdou	
	US 20060122620 A1	6/8/2006	Kim	
	US 20060136060 A1	6/22/2006	Taylor	
	US 20060149278 A1	7/6/2006	Abdou	
	US 7087083 B2	8/8/2006	Pasquet et al.	
	US 20060184247 A1	8/17/2006	Edidin et al.	
	US 20060184248 A1	8/17/2006	Edidin et al.	
	US 20060195102 A1	8/31/2006	Malandain	
	US 20060217726 A1	9/28/2006	Maxy et al.	
	US 20060264938 A1	11/23/2006	Zucherman et al.	
	US 20060271044 A1	11/30/2006	Petrini et al.	
	US 20060293662 A1	12/28/2006	Boyer, II et al.	
	US 7163558 B2	1/16/2007	Senegas et al.	
	US 7201751 B2	4/10/2007	Zucherman et al.	
	US 7238204 B2	7/3/2007	Le Couedic et al.	
	US 7306628 B2	12/11/2007	Zucherman et al.	
	US 7442208 B2	10/28/2008	Mathieu et al.	
	US 7445637 B2	11/4/2008	Taylor	

## FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Relevant Passages	T <sup>6</sup>
		Country Code <sup>3</sup>	Number <sup>4</sup> Kind Code <sup>5</sup> (if known)			
/P.P./		FR	2625097 A1	6/30/1989	COTE S.A.R.L.	
		FR	2700941 A1	8/5/1994	Felman	
		FR	2703239 A1	10/7/1994	Bio Rhone Implant Medical B.R.I. S.A.R.L.	
		FR	2722087 A1	1/12/1996	Cahlik	
		FR	2725892 A1	4/26/1996	Felman	
		FR	2730156 A1	8/9/1996	Textile Hi Tec S.A.	
		FR	2775183 A1	8/27/1999	Taylor	X
		FR	2816197 A1	5/10/2002	Taylor et al.	X
		JP	02-224660	9/6/1990	Johnson & Johnson Orthopedics Inc. et al.	
		JP	09-075381	3/25/1997	Nippon Electric Glass Co. Ltd.	

Examiner Signature	/Pedro Philogene/	Date Considered	08/16/2009
--------------------	-------------------	-----------------	------------

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 3 of 7

Application Number	10/790561
Filing Date	3/1/2004
First Named Inventor	Zucherman
Art Unit	3733
Examiner Name	Jerry L. Cumberledge
Attorney Docket Number	5910-169

/P.P./	SU	988281	1/15/1983	Pustovojtenko		
	WO	94/26195	11/24/1994	Felman		
	WO	98/20939	5/22/1998	Advanced Bio Surfaces, Inc.		
	WO	2004/047691 A1	6/10/2004	SDGI Holdings, Inc. et al.		
	WO	2005/009300 A1	2/3/2005	Choi		
	WO	2005/044118 A1	5/19/2005	Cousin Biotech, S.A.S. et al.		
	WO	2005/110258 A1	11/24/2005	Wooridul Spine Health Institute, Co. et al.		
	WO	2007/034516 A1	3/29/2007	Sintea Biotech S.P.A. et al.		

## NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
/P.P./		BENZEL et al., "Posterior Cervical Interspinous Compression Wiring and Fusion for Mid to Low Cervical Spinal Injuries," J. Neurosurg., June 1989, pp. 893-899, Vol. 70.	
/P.P./		CASERTA et al., "Elastic Stabilization Alone or Combined with Rigid Fusion in Spinal Surgery: a Biomechanical Study and Clinical Experience Based on 82 Cases," Eur. Spine J., Oct. 2002, pp. S192-S197, Vol. 11, Suppl. 2.	
/P.P./		CHRISTIE et al., "Dynamic Interspinous Process Technology," SPINE, 2005, pp. S73-S78, Vol 30, No. 16S.	
/P.P./		COUSIN BIOTECH, "Analysis of Clinical Experience with a Posterior Check Absorbing Implant," date unknown, pp. 0-0	
/P.P./		COUSIN BIOTECH, Dispositif Intervertebral Amortissant, June 1998, pp. 1-4.	X
/P.P./		COUSIN BIOTECH, Technique Operatoire de la Prothese DIAM, date unknown, Annexe 1, pp. 1-9.	X
/P.P./		DICKMAN et al., "The Interspinous Method of Posterior Atlantoaxial Arthrodesis," J. Neurosurg., Feb. 1991, pp. 190-198, Vol. 74.	
/P.P./		Dispositif Intervertebral Amortissant DIAM, date unknown, p. 1.	X
/P.P./		DUBOIS et al., "Dynamic Neutralization: A New Concept for Restabilization of the Spine," Lumbar Segmental Instability, Szpalski et al., eds., 1999, pp. 233-240, Lippincott Williams & Wilkins, Philadelphia, Pennsylvania.	
/P.P./		EBARA et al., "Inoperative Measurement of Lumbar Spinal Instability," SPINE, 1992, pp. S44-S50, Vol. 17, No. 3S.	
/P.P./		FASSIO et al., "Treatment of Degenerative Lumbar Spinal Instability L4-L5 by Interspinous Ligamentoplasty," Rachis, December 1991, pp. 465-474, Vol. 3, No. 6.	X
/P.P./		FASSIO, "Mise au Point Sur la Ligamentoplastie Inter-Epineuse Lombar Dans les Instabilites," Maitrise Orthopedique, July 1993, pp. 18, No. 25.	X

Examiner Signature	/Pedro Philogene/	Date Considered	08/16/2009
--------------------	-------------------	-----------------	------------

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 4 of 7

Application Number	10/790561
Filing Date	3/1/2004
First Named Inventor	Zucherman
Art Unit	3733
Examiner Name	Jerry L. Cumberledge
Attorney Docket Number	5910-169

## NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T*
/P.P./		GARNER et al., "Development and Preclinical Testing of a New Tension-Band Device for the Spine: the Loop System," Eur. Spine J., August 7, 2002, pp. S186-S191, Vol. 11, Suppl. 2.	
/P.P./		GUANG et al., "Interspinous Process Segmental Instrumentation with Bone-Button-Wire for Correction of Scoliosis," Chinese Medical J., 1990, pp. 721-725, Vol. 103.	
/P.P./		GUIZZARDI et al., "The Use of DIAM (Interspinous Stress-Breaker Device) in the Prevention of Chronic Low Back Pain in Young Patients Operated on for Large Dimension Lumbar Disc Herniation," 12th Eur. Congress of Neurosurgery (EANS), Sept. 7-12, 2003, pp. 835-839, Lisbon, Portugal.	
/P.P./		HAMBLY et al., "Tension Band Wiring-Bone Grafting for Spondylolysis and Spondylolisthesis," SPINE, 1989, pp. 455-460, Vol. 14, No. 4.	
/P.P./		KIERSKI, "Rehabilitation of Patients with Thoracic Spine Injury Treated by Spring Alloplasty," Int. J. Rehab. Research, 1983, pp. 469-474, Vol. 6, No. 4.	
/P.P./		LAUDET et al., "Comportement Bio-Mécanique D'Un Ressort Inter-Apophysaire Vertébral Postérieur Analyse Expérimentale Due Comportement Discal En Compression Et En Flexion/Extension," Rachis, 1993, Vol. 5, No. 2.	X
/P.P./		MAH et al., "Threaded K-Wire Spinous Process Fixation of the Axis for Modified Gallie Fusion in Children and Adolescents," J. Pediatric Orthopaedics, 1989, pp. 675-679, Vol. 9.	
/P.P./		MARIOTTINI et al., "Preliminary Results of a Soft Novel Lumbar Intervertebral Prosthesis (DIAM) in the Degenerative Spinal Pathology," Acta Neurochirurgia, Advanced Peripheral Nerve Surgery and Minimal Invasive Spinal Surgery, Alexandre et al., eds., 2005, pp. 129-131, Vol. 32, Suppl.	
/P.P./		MCDONNELL et al., "Posterior Atlantoaxial Fusion: Indications and Techniques," Techniques in Spinal Fusion and Stabilization, Hitchon et al., eds., 1995, pp. 92-106, Ch. 9, Thieme, New York.	
/P.P./		MÜLLER, "Restauration Dynamique de la Stabilité Rachidienne," Tiré de la Sulzer Technical Review, January 1999, Sulzer Management Ltd, Winterthur, Switzerland.	X
/P.P./		PENNAL et al., "Stenosis of the Lumbar Spinal Canal," Clinical Neurosurgery: Proceedings of the Congress of Neurological Surgeons, St. Louis, Missouri, 1970, Tindal et al., eds., 1971, Ch. 6, pp. 86-105, Vol. 18.	
/P.P./		PETRINI et al., "Analisi Di Un'Esperienza Clinica Con Un Impianto Posteriore Ammortizzante," S.O.T.I.M.I. Società di Ortopedia e Traumatologia dell'Italia Meridionale e Insulare 90 ° Congresso, June 21-23, 2001, Paestum.	X
/P.P./		PETRINI et al., "Stabilizzazione Elastica," Patologia Degenerativa del Rachide Lombare, Oct. 5-6, 2001, Rimini.	X
/P.P./		PUPIN et al., "Clinical Experience with a Posterior Shock-Absorbing Implant in Lumbar Spine," World Spine 1: First Interdisciplinary World Congress on Spinal Surgery and Related Disciplines, Aug. 27-Sept. 1, 2000, Berlin, Germany.	
/P.P./		RENGACHARY et al., "Cervical Spine Stabilization with Flexible, Multistrand Cable System," Techniques in Spinal Fusion and Stabilization, Hitchon et al., eds., 1995, pp. 79-81, Ch. 7, Thieme, New York.	

Examiner Signature	/Pedro Philogene/	Date Considered	08/16/2009
--------------------	-------------------	-----------------	------------

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 5 of 7

Application Number	10/790561
Filing Date	3/1/2004
First Named Inventor	Zucherman
Art Unit	3733
Examiner Name	Jerry L. Cumberledge
Attorney Docket Number	5910-169

## NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
/P.P./		RICHARDS et al., "The Treatment Mechanism of an Interspinous Process Implant for Lumbar Neurogenic Intermittent Claudication," SPINE, 2005, pp. 744-749, Vol. 30, No. 7.	
/P.P./		SCARFIO, "Instability/Stenosis: Holistic Approach for Less Invasive Surgery," date unknown, University of Girona, Girona, Italy.	
/P.P./		SCHIAVONE et al., "The Use of Disc Assistance Prosthesis (DIAM) in Degenerative Lumbar Pathology: Indications, Technique, Results," Italian J. Spinal Disorders, 2003, pp. 213-220, Vol. 3, No. 2.	X
/P.P./		SCHLEGEL et al., "The Role of Distraction in Improving the Space Available in the Lumbar Stenotic Canal and Foramen," SPINE, 1994, pp. 2041-2047, Vol. 19, No. 18.	
/P.P./		SENEGAS et al., "Le Recalibrage du Canal Lombar, Alternative à la Laminectomie dans le Traitement des Sténoses du Canal Lombar," Revue de Chirurgie Orthopédique, 1988, pp. 15-22.	X
/P.P./		SENEGAS et al., "Stabilisation Lombar Souplesse, Instabilité Vertébrales Lombaires, Gastambide, ed., 1995, pp. 122-132, Expansion Scientifique Française, Paris, France.	X
/P.P./		SENEGAS, "La Ligamentoplastie Inter Vertébrale Lombar, Alternative à L'Arthrodèse," La Revue de Médecine Orthopédique, June 1990, pp. 33-35, No. 20.	X
/P.P./		SENEGAS, "La Ligamentoplastie Intervertébrale, Alternative à L'arthrodèse dans le Traitement des Instabilités Dégénératives," Acta Othopaedica Belgica, 1991, pp. 221-226, Vol. 57, Suppl. I.	X
/P.P./		SENEGAS, "Mechanical Supplementation by Non-Rigid Fixation in Degenerative Intervertebral Lumbar Segments: the Wallis System," Eur. Spine J., 2002, p. S164-S169, Vol. 11, Suppl. 2.	
/P.P./		SENEGAS, "Rencontre," Maîtrise Orthopédique, May 1995, pp. 1-3, No. 44.	X
/P.P./		SERHAN, "Spinal Implants: Past, Present, and Future," 19th International IEEE/EMBS Conference, Oct. 30-Nov. 2, 1997, pp. 2636-2639, Chicago, Illinois.	
/P.P./		SPADEA et al., "Interspinous Fusion for the Treatment of Herniated Intervertebral Discs: Utilizing a Lumbar Spinous Process as a Bone Graft," Annals of Surgery, 1952, pp. 982-986, Vol. 136, No. 6.	
/P.P./		Sulzer Implants, "DIAM - Modified CAD Geometry and Molding," date unknown.	
/P.P./		TAYLOR et al., "Analyse d'une expérience clinique d'un implant postérieur amortissant," Rachis Revue de Pathologie Vertébrale, October/November 1999, Vol. 11, No. 4-5, Gieda Inter Rachis.	X
/P.P./		TAYLOR et al., "Surgical Requirement for the Posterior Control of the Rotational Centers," date unknown.	

Examiner  
Signature

/Pedro Philogene/

Date  
Considered

08/16/2009

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 6 of 7

Application Number	10/790561
Filing Date	3/1/2004
First Named Inventor	Zucherman
Art Unit	3733
Examiner Name	Jerry L. Cumberledge
Attorney Docket Number	5910-169

## NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
/P.P./		TAYLOR et al., "Technical and Anatomical Considerations for the Placement of a Posterior Interspinous Stabilizer," 2004, pp. 1-10, Medtronic Sofamor Danek USA, Inc., Memphis, Tennessee.	
/P.P./		TAYLOR, "Biomechanical Requirements for the Posterior Control of the Centers of Rotation," Swiss Spine Institute International Symposium: Progress in Spinal Fixation, June 21-22, 2002, pp. 1-2, Swiss Spine Institute, Bern, Switzerland.	
/P.P./		TAYLOR, "Non-Fusion Technologies of the Posterior Column: A New Posterior Shock Absorber," International Symposium on Intervertebral Disc Replacement and Non-Fusion-Technology, May 3-5, 2001, Spine Arthroplasty.	
/P.P./		TAYLOR, "Posterior Dynamic Stabilization using the DIAM (Device for Intervertebral Assisted Motion)," date unknown, pp. 1-5.	
/P.P./		TAYLOR, "Présentation à un d'un dispositif amortissant d'assistance discale," 5èmes journées Avances & Controverses en pathologie rachidienne, October 1-2, 1998, Faculté Libre de Médecine de Lille.	X
/P.P./		Technica Operatoria Per Il Posizionamento Della Protesi DIAM, date unknown, pp. 1-3.	X
/P.P./		VANGILDER, "Interspinous, Laminar, and Facet Posterior Cervical Bone Fusions," Techniques in Spinal Fusion and Stabilization, Hitchon et al., eds., 1995, pp. 135-146, Ch. 13, Thieme, New York.	
/P.P./		VOYDEVILLE et al., "Experimental Lumbar Instability and Artificial Ligament," Eur. J. Orthop. Surg. Traumatol., July 15, 2000, pp. 167-176, Vol. 10.	
/P.P./		VOYDEVILLE et al., "Lumbar Instability Treated by Intervertebral Ligamentoplasty with Smooth Wedges," Orthopédie Traumatologie, 1992, pp. 259-264, Vol. 2, No. 4.	X
/P.P./		Wallis Operative Technique: Surgical Procedure for Treatment of Degenerative Disc Disease (DDD) of Lumbar Spine, date unknown, pp. 1-24, Spine Next, an Abbott Laboratories company, Bordeaux, France.	
/P.P./		WILTSE et al., "The Treatment of Spinal Stenosis," Clinical Orthopaedics and Related Research, Urist, ed., March-April 1976, pp. 83-91, No. 115.	
/P.P./		WISNESKI et al., "Decompressive Surgery for Lumbar Spinal Stenosis," Seminars in Spine Surgery, Wiesel, ed., June 1994, pp. 116-123, Vol. 6, No. 2.	
/P.P./		ZUCHERMAN et al., "Clinical Efficacy of Spinal Instrumentation in Lumbar Degenerative Disc Disease," SPINE, July 1992, pp. 834-837, Vol. 17, No. 7.	

Examiner Signature	/Pedro Philogene/
--------------------	-------------------

Date Considered	08/16/2009
-----------------	------------

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT***(Use as many sheets as necessary)*

Sheet 7 of 7

Application Number	10/790561
Filing Date	3/1/2004
First Named Inventor	Zucherman
Art Unit	3733
Examiner Name	Jerry L. Cumberledge
Attorney Docket Number	5910-169

**CERTIFICATION STATEMENT**

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

- ☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

**OR**

- ☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).
- ☐ See attached certification statement.
- ☐ Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.
- ☒ None.

**SIGNATURE**

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/John R. Owen Reg. No. 42,055/	Date (YYYY-MM-DD)	2009-03-24
Name/Print	John R. Owen	Registration Number	42,055

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Examiner Signature	/Pedro Philogene/	Date Considered	08/16/2009
-----------------------	-------------------	--------------------	------------